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ABSTRACT

The paper explores types of secondary education offered to students of various social backgrounds in Teheran, Iran, and examines processes by which students are guided into educational tracks. The hypothesis is that assignment to an academic versus a vocational program and tracking within these programs plays a major role in the type of occupational and, consequently, socioeconomic level that an individual will be able to achieve. Tracking is a particularly strong influence in less developed nations such as Iran where occupational recruitment and training has been an even more manifest purpose of modern (western) type schools. Two sources of data are used: (1) qualitative data derived largely from Iranian educational literature, interviews with teachers, counselors, and other educators, and observations in schools and homes; and (2) quantitative data compiled from the academic files of 465 students selected at random from public and private high schools in the Teheran region. Findings from analysis of qualitative data indicated that tracking is influenced by perceived inclination and academic ability of the student, parental opinion, achievement and aptitude test results, and grades. Findings from analysis of quantitative data indicated that, in addition to these influences, there was a definite correlation between academic achievement and occupational status of the parents and track in which a student was placed. Although this correlation between socioeconomic status and placement in a high track was not as strong as has been often assumed in existing research, it was found that socioeconomic variables influenced counselor's tracking decisions indirectly and were associated with high scores on subjects (particularly science and math) deemed most crucial for entrance to the most prestigious fields of secondary education. (DB)

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IRANIAN SCHOOLS AS AGENTS OF OCCUPATIONAL RECRUITMENT

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That schools serve as agents of occupational recruitment is a truism in the sociological study of education. In contemporary industrial societies most occupations require a certain level and/or type of educational experience for entrance into the field, and the educational system seems to be increasingly designed to meet the certification requirements of the various occupational fields. In the less developed countries of the world occupational recruitment and training has been an even more manifest purpose of modern "western" style schools. In Iran, as in so many other countries, such schools served initially to recruit and prepare a cadre of pre-professional and administrative and white-collar workers. Typically, as the demand for entrance into the modern educational system has grown, the system itself has expanded, leading eventually to an over-supply of applicants for administrative, white-collar, and professional positions. In many cases this has led to an attempt to redefine the responsibilities of schools in the area of occupational recruitment and training and to the development of formal courses of training for technical and skilled labor positions.

Whether in the industrial or the less developed category, contemporary societies have also tended to accept an ideal of individual achievement of social status and position in life and of education as a means by which individuals demonstrate and develop their interests, talents, and abilities. It is considered proper, therefore, that individuals acquire their initial occupational placement largely as a result of their educational attainments, at least as long as education provides an equal opportunity for all to demonstrate and develop their abilities and interests. The discovery by social scientists that opportunity is not equalized through education in American society, that socio-economic background continues to have an

impact on both educational attainment and occupational achievement, has been very disturbing. Not surprisingly, social scientists have also been led to ask whether in the less developed countries schools also serve as much as agents of intergenerational status transmission as they do mechanisms through which individuals can rise or fall to their "natural" places in the status hierarchy.

In a recent review of the literature on the relationship between social background, educational attainment, and subsequent occupational status in less developed countries, Philip Foster notes that such studies have always shown some correlation between social background and educational attainment and that in less developed countries the level of educational attainment appears to be, if anything, a stronger predictor of occupational placement than it is in industrial societies. While noting that most studies of this question in the less developed countries measure educational achievement only by the length of time spent in school, Foster adds that in such societies "social background often determines whether a child will get into school in the first place but it becomes progressively less important in influencing how far he will progress or into what type of school he will move at the secondary level"(Foster 1977:224).

In this paper we propose to look at the types of secondary education offered to students of various social backgrounds in Tehran, Iran, and the processes by which students are guided into one or another track at the secondary level, a decision which has a major influence on the type of occupational and hence the socio-economic level that the individual will be able to achieve. We make use of two sources of data to investigate the relationship between social background, educational achievement, and the types of education into which the individual is channeled at the secondary level. The first is largely qualitative data from Iranian educational

literature, interviews with teachers, counselors, and other educators, and observations in schools and homes. The second is quantitative data compiled from the individual files of some 465 students. This quantitative data may reveal patterns in the relationships between these variables which are not necessarily apparent in the channeling process with respect to individual students.

Iranian Education in the 1970's

By the 1960's the Iranian educational system had grown to a point at which it was readily apparent that the supply of pre-professionals, administrators, and white-collar workers out-stripped the current needs of the country. Responding to the call by development planners for more technicians and workers skilled in modern technologies, the Ministry of Education proposed a major reorganization of the school system. Known as the New System of Education, the plan involved shortening elementary education from six to five years and creating a "guidance cycle" for grades six, seven and eight. In addition to extending general education, the guidance cycle was expected to facilitate the discovery of the natural interests and abilities of the students and the appropriate guidance of each student toward further academic or vocational training in one of a variety of fields and toward eventual employment in a wider range of occupations. Concurrently, secondary education was to be diversified to provide these increased educational options. In accordance with the New System, curriculum revisions were also made at every educational level (Iran, Ministry of Education 1968).

Implementation was gradual, with changes introduced at higher grade levels year by year. The first cohort to be educated under the New System entered the first grade in 1965 and completed secondary education in 1978. Secondary education had been reorganized by 1978 in such a way that a graduate of the guidance cycle could continue his/her studies in one of

five fields of education. Two of these--Science and Mathematics and Humanities--comprise the academic branch of secondary education, while the other three--Industry, Services, and Rural Vocations--comprise the technical and vocational branch. Table 1 indicates the various sub-specialties open to the student at later stages, dependent upon initial placement and the subsequent interests and achievements of the student. It is important to note that although the technical and vocational branch was initially seen as an alternative to college bound tracks, by 1978 provision had been make for graduates of these tracks as well as graduates of the two academic tracks to be eligible for college entrance.

With respect to the goal of diversifying the educational system and channeling more students into non-academic fields, the Ministry of Education could claim some success. The percent of students grades 9-12 enrolled in technical and vocational schools had increased from 7.7% in 1972-73 to 20.6% in 1976-77 with comparable increases in the percent of schools and the percent of teachers in the technical and vocational fields. Table 2 shows that the most dramatic increase took place in 1974-75, the year in which the first class of graduates from the new guidance cycle began their secondary course of study. Ministry officials anticipated a continuing gradual decline in the proportion of secondary students enrolled in the academic branch as more schools were built and teachers trained for the technical and vocational branch.

The questions of major to interest to us are how a student moves from the general education of the elementary and guidance cycles into a particular type of secondary education and what factors influence the placement of a student in one or another of the fields of secondary education. Although teachers and school officials are supposed to be continually observing and fostering the development of the individual interests and abilities of the

child, it is with the guidance cycle that the most concerted efforts are made to discover and assess the student's talents and interests in various fields and to encourage students and parents to think about both the various educational options at the secondary level and the occupational futures of the students. One innovation was the introduction of a course in Technical and Vocational Studies, required for all three years of the guidance cycle. This course is expected to have practical as well as theoretical activities and to expose students to non-academic fields of study and work. The Ministry of Education had also prepared nearly 100 pamphlets each describing a different occupation and the educational preparation needed for entrance into that field. These were loaned to students through the office of the guidance counselor, and they were both reported and observed to be popular reading material among students.

The training and employment of counselors for the guidance cycle was a key part of the New System. The counselor's duties involve administering intelligence, achievement, and aptitude tests to the guidance cycle students; soliciting information from the students on their occupational and educational preferences, and through the students on their family backgrounds and their parents' opinions concerning their futures; consulting with students as time allows and need requires; keeping a record of all this information plus the students' grades and teachers' comments; and recommending each student for one of the fields of secondary education. Formal provisions had been made for students to gain entrance into fields other than those to which they were recommended or to change their field of study after beginning secondary school. Educational officials were not able to provide us with any data on the number of students who entered a field other than the one recommended by the counselor or who change their fields of study during the

secondary cycle, but the general opinion was that this was rare. If the student continued his/her education, as about 65% did, it is most likely that he/she would do so in the field recommended by the counselor.

The Guidance Process

The key question, then, is to determine what factors, implicitly and explicitly, enter into the decision of the counselor to recommend a student for one or another field of secondary education. According to Iranian educational literature, the counselor is to base his/her recommendation on:

1) the inclination of the student;

2) the opinion of the parents;

3) the results of special tests; and

4) the grades the student has achieved in various subjects

(Safi 1975:15). According to the head of counseling in one of the districts of Tehran, the recommendation should be based on acquaintance with the student, special tests, recommendations of teachers and principal, and the desires of the student and parents. It was the opinion of many Iranian educators that the original intention of the guidance program was to free decisions about the student's future from reliance on the results of school examinations, but they agreed with our observations that counselors do consider grades as at least one factor. In no case, however, did an educational official or a counselor tell us that social background and family variables should be taken into account in making a recommendation, and they expressed some difference of opinion as to the importance of socio-economic variables in educational performance.

To what extent does the counselor's decision actually depend on the factors cited? According to some counselors and school officials, parents actually have little say in the decision because they lack the necessary information, such as the fields available and the requirements for entering

each, and because in fact they rarely speak directly with the counselor, but relay their preferences through standard forms returned to the school. The students are consulted, and presumably they are better informed, but they too express their preferences by filling out a form or through a brief interview. Although the counselor/student ratio was improving, still in 1977-78 each counselor was responsible for an average of 800 students, suggesting that in depth and personal knowledge of the student could not play much part in most decisions.

The special tests given in the guidance cycle include the following:

1) an intelligence test with four sub-tests, given to each student;

2) a series of achievement tests, paralleling the major subjects of the guidance cycle, again given to each student;

3) several special tests of interest and ability in particular fields, given only to students expressing special interest in these fields;

4) an aptitude test given to only 10% of the students, those who are completely undecided concerning their fields of interest.

Counselors mentioned using the first two tests primarily to identify under-achieving students who could then be encouraged to work harder in their regular classes. Although scores were recorded for the sub-tests of the intelligence test, counselors were reported to rely most heavily on the average intelligence score. The second two tests are presumably used in guiding those students who do take them.

Despite the resistance of some counselors and educators, it seems that school grades continue to be one of the most important, if not the most important, criteria used by the counselors in their recommendations of students to one or another field. One reason for this is that the various fields of secondary education have set minimum grade requirements for

entrance into the field. For practical purposes, therefore, counselors must make their recommendations within these guidelines. Counselors observed working with third year students would advise them of the minimum requirements, help them determine the grades they had to get on the year-end examination to meet these requirements, and advise that if they did not get this grade, even though they might have passed the course, they ought to take the exam again in hopes of raising their grades.

Another indication of the importance of the school grades comes from the individual student files and the pattern of record keeping that we discovered in the guidance cycle schools. We found a great deal of variation in the completeness and the care with which such files were kept from school to school and from district to district in Tehran. The one type of data that was kept carefully and rigorously at all the schools studied is the results of the examinations in each school subject. Virtually every file had such information on the four key subjects, and many had the information on all eleven of the guidance cycle subjects. In those cases in which this information was not in the individual student files we were able to obtain it quickly and easily, as the results of the examinations are recorded in an official gradebook which is kept personally by the principal of each school.

Examination of the student files, which will be the focus of the remainder of this paper, provides another view of the guidance process and some indications of its results. This data was collected in the Spring of 1978 from the school records of 465 former guidance cycle students at twelve schools in three different districts of Tehran. These students had completed the guidance cycle between 1974 and 1977. The districts were chosen from lower and middle class regions of the city, and the schools were chosen so as to maintain a balance between public and non-public

institutions and between girls, boys, and co-educational schools. The individual student files were selected at random from the closets in which they were kept, but numerous problems in the sampling and data collection procedure restrain us from considering this a scientifically rigorous sample (Higgins 1978). It is hoped that an analysis of this data can shed some additional light on guidance practices and that it can help us determine whether students are in fact guided into various tracks according to their interests and abilities and whether placement in the various fields is correlated directly or indirectly with social background and family variables.

We will be concerned here with data from the files relevant to three types of variables: measures of socio-economic status; educational performance variables; and the fields of secondary education chosen by the students, their parents, and their counselors. Ideally, we should also include data on the abilities of the student as measured by the intelligence and standardized achievement tests, but this data has not yet been analyzed. After discussing each of the types of variables in turn, we investigate the relationship between them as documented by the files.

Measures of Socio-Economic Status

The files kept on guidance cycle students provide us with several potential measures of the socio-economic status of the family, including the occupation and educational levels of both parents and data from which we computed the number of people per room in the home. We have attempted to test the relationship between each of these measures and the educational performance and choice of fields variables, but we have found some of these measures more useful than others. The relative usefulness of the measures is based both on the quality of the data available to us and on their validity as measures of soci-economic status.

The educational level of the parents was recorded in terms of the number of years of schooling completed. The mean number of years of education of the fathers was 7.9 while the comparable figure for the mothers was 5.5. This does not count the 18 fathers and 14 mothers who were reported to have had only a traditional education--to have learned to read and write in Koranic schools with no attendance at modern, graded elementary schools. For some purposes the data on the educational level of the parents was regrouped into four categories, as indicated in Table 3.

The data on the occupations of the parents which we were able to get from the student files is very restricted, and we are still working on a socio-economic and/or prestige scaling for this variable. Provisionally we coded the occupations according to the categories indicated in Table 4. Due to the small number of cases in which the mother of the student was employed outside the home, we have for most purposes simply compared the cases with employed mothers (N=43) with those in which the mothers were not employed outside the home.

Although father's occupation is most often used in social science literature as the primary measure of a family's social status, problems with the occupational data have led us to rely more heavily on other measures of socio-economic status. We find some support for using father's education as a measure of the socio-economic status of the Iranian family in the work of Mehryar and Tashakkori who state that "earlier studies as well as detailed evidence from the present investigation have found this to be a relatively sensitive measure of home environment and socioeconomic status of the family"(Mehryar and Tashakkori 1978:630). In addition, we have found in our data a significant association between father's occupational category and father's education in the direction one would expect; the higher a father's educational level the more likely he is to be in the professional or white-collar category (Table 5).

In general we found a consistent association between father's and mother's educational levels and their occupational and employment status. Mothers with a high school diploma or college education are more likely to be found in families in which the father holds a white-collar or professional position, although some 18% of the fathers in the professional and white-collar categories were married to women with less than a 6th grade certificate (Table 6). Likewise, the educational levels of the two parents were associated with one another, again with some tendency for women to marry up educationally (Table 7).

The relationship between the mother's employment status and her educational level is illustrated in Table 8 and that between her employment status and the educational level of her husband in Table 9. Although only 10% of the mothers worked outside the home, 64% of mothers with a high school diploma or college education were employed outside the home. The mothers least likely to be employed outside the home were those with a 6th grade certificate. The same pattern is apparent when we compare the mother's employment status with her husband's level of education. The mothers least likely to be employed are those married to men with a 6th grade certificate, while those most likely to be employed are those married to men with a high school diploma or college education.

One other measure of socio-economic status we have used is the number of people per room in the homes of the students. The families ranged in size from 2 to 14 and their homes from 1 to 8 rooms. They were so distributed that the number of people per room ranged from 0.5 to 8 with an average of 2.3 persons per room. We found the number of people per room in the student's family to be significantly correlated with all the other measures of socio-economic status. Students whose parents are more highly educated, whose mothers are employed, and/or whose fathers' occupations are in the professional

or business category are more likely to live in homes in which there are 1 to 2 persons per room.

Measures of Educational Performance

The individual student files yield two measures of the performance of the student during the guidance cycle period. These are the number of years of school repeated during this cycle and the student's grades in each subject of the guidance cycle. In order to interpret these measures a few words on the examination and grading system are in order.

For most of the period in question the guidance cycle students received two midterm grades during the year and one final grade in each of ten subjects plus a grade in Comportment. (Beginning in 1976-77 this was changed to three midterm grades plus the final grade, but in other respects the system remained the same.) The midterm grades could be based on a series of tests and/or classwork, but the final grade was always based on a single written or oral exam. According to Ministry of Education regulations, to pass a student had to receive a score of 10 or more (on a scale of 0-20) on the year-end examination in Persian, Science, and Mathematics and a score of 7 or more in all other subjects. In addition, the average score for the year (based on the two or three midterm grades and the final exam, double weighted) for each subject had to be at least 10 (Iran, Ministry of Education 1972). If a student did not achieve these minimum scores with the final exams in June, he/she could take the final exam in one or more subjects in September. If the student still did not achieve the minimum score, or if he/she had not received the first and second midterm grades, the year had to be repeated. Repeating a year in school is not an uncommon occurrence, and in our sample 24% of the students had repeated one year of the three year guidance cycle while 2% had repeated two or more years.

For our measure of school grades we have taken the average of the three year-end examination scores in each of the ten subjects plus the average of the year-end Comportment scores. In those cases in which a student had repeated a year we used the second of the two years' scores in our measure. In cases in which he/she had taken the final exam over in September, we used the higher of the scores recorded in the files. Due to changes in the format of the student files, we have grade averages in seven of the subjects for less than half the cases. For what are considered the key subjects, however, (Persian, Science, Mathematics, and Technical and Vocational Studies) we have scores for 462 students.

The average scores and standard deviations for each school subject are indicated in Table 10. Among the key subjects the scores for Technical and Vocational Studies tended to be the highest, and those for Mathematics the lowest. The Mathematics scores also tended to be more widely distributed. Of all the subjects, the lowest average score was in Foreign Language and the highest in Comportment. The grade averages plus the other statistics for Art, Physical Education, and Comportment are quite different from those for the other subjects, suggesting that a different pattern of grading is in operation here. In fact, the method of examination for Art and Physical Education is termed "practical", rather than written or verbal, and the Comportment score is a composite of the scores given by each teacher for "orderliness, diligence, and discipline"(Iran, Ministry of Education 1972:1-2).

Not surprisingly, these two measures of educational performance, repetition of years in school and average year-end examination scores, were found to be significantly associated with one another. Those students who had not repeated any years of the guidance cycle scored significantly higher in all subjects than did those who had repeated one or more years. In addition, the scores in various subjects proved to be closely associated

with one another. The four key subjects, Persian, Science, Mathematics, and Technical and Vocational Studies, were each significantly correlated with one another at levels ranging from r=.63 to r=.73. (See Tables 11 and 12.)

Choices of Educational Field

The third set of variables with which we are concerned are those relating directly to the selection of a field of secondary education. Each student is asked to list in order of priority the fields of secondary education in which he/she would like to continue his/her education. Likewise, parents are asked to list the fields they prefer for their child in order of priority. At the end of the guidance cycle period the counselor recommends, again in order of priority, the fields for which he/she believes the student to be best suited.

The frequency with which the various fields are selected as the first choice by the student, by parents, and by the counselors are indicated in Table 13. "Academic" refers to either Science and Math or Humanities and "Comprehensive" refers to an academic program that includes one or more technical or vocational subjects. These were no longer among the fields that could be chosen in 1977, and they are not figured in subsequent analyses using these variables in this paper. Similarly, in subsequent analyses the few cases in which Rural Vocations was selected as a first choice are not considered. There were no secondary schools in Tehran offering Rural Vocations so that realistically it did not exist as an option for most Tehran students.

Table 13 demonstrates a close correspondence in the overall selection of fields by students and by parents, and there is a high and significant correlation between these two variables. The relative distribution of first choices among the four fields corresponds with what teachers, educators, and parents had indicated to be the general prestige ranking of the fields. We

had been told often in interviews that Science and Math was the "best" field for a student to enter, and that Industry had come to outrank the second academic field, especially since the possibility for college education had been opened to graduates of the technical and vocational branch. The patterning of the students and parents' choices, therefore, suggests that some proportion may be choosing a field more on the basis of its prestige than on the basis of the students special talents and interests.

The first choices of the counselors were more evenly distributed over the four fields. Though they recommend to Science and Math the largest number of students, both Humanities and Services were recommended as first choice somewhat more often than was Industry, the second most popular field among students and parents. Nevertheless, there is a high and significant correlation both between the student's first choice of field and the counselor's first choice of field for him/her and between the parents' first choice of field for their child and the counselor's first choice of field for each student.

Socio-Economic Status, Educational Performance and Choice of Fields

Having described each of the socio-economic measures, the school performance variables, and the selection of fields of secondary education, and having discussed the relationship between the variables of each type, we now proceed to the investigation of the relationship between the socio-economic measures, the school performance variables, and the selection of fields. Since we are most concerned with the factors influencing, explicitly and implicitly, the counselor's choice of field, we will focus our discussion on the relationship of other variables to this one and to the student's and the parents' choice of field. We have already seen that the counselor is expected to take these two variables into account in making a recommendation and that in fact the counselor's recommendation is correlated with both the student's and the parents' first choice of field.

In examining the relationship between choice of fields and socio-economic variables, we found both the student's first choice of field and the parents' first choice of field to be significantly associated with the level of the father's education and with the number of people per room in the student's home. Students who selected Science and Math as their first choice had fathers with an average of nearly two years more education that the fathers of students who chose any of the other three fields. Likewise, of the parents selecting Science and Math as their first choice, fathers had two years more education than did the fathers in families in which the parents selected as first choice any of the other three fields. In a similar manner, students who chose Science and Math as their first choice and/or whose parents selected Science and Math as first choice lived in lower density households than did other students. We also found a significant correlation between the father's occupational category and the student's and parents' choice of field, and between the mother's level of education and the student's choice of field. We found no such relationship between the choices of fields and mother's employment status. (See Tables 14 through 20.)

Despite the correlation between both student's and parents' choice of field and the counselor's recommendation, the counselor's choice of field was not independently associated with the father's educational level nor with the number of people per room in the student's home. Nor was it associated with the father's occupational category nor the mother's employment status. With respect to the relationship between the counselor's choice of field and the mother's educational level, our results to date are inconclusive. We have found a statistically significant association with one of the measures of mother's education and no significant association with the other.

When we turn to the association between the fields of study selected and measures of school performance, we find that there is a significant relationship between the student's choice of field, the parents' choice of

field, and the counselor's choice of field, on the one hand, and the student's grades in virtually every subject. For most subjects the greatest difference is between the prospective Science and Math students and all others. Students who chose Science and Math and/or whose parents and/or counselors chose this field for them score on the average at least one point higher than do other students in Religion and Morals, Social Science, Persian, Technical and Vocational Studies, History and Geography, and Foreign Language. In Science and in Mathematics, the key subjects for entrance into this field, these students score on the average two points or more higher than students who select other fields and/or whose parents and/or counselors choose other fields for them. There is also a significant relationship between scores on Comportment and the students, parents, and counselors' choices of field, with the prospective Science and Math students again scoring higher than all others. (See Tables 21 through 26.)

When we compare the student's,parents', and counselor's choice of field with our other measure of school performance, whether the student has repeated any years of the guidance cycle, we again find a significant association. Students who select, and/or whose parents and/or counselors select, Science and Math are most successful in this regard as well; they are the students least likely to have repeated a year of guidance cycle. The group next most likely to have finished the guidance cycle without having to repeat a grade are those who select and/or whose parents and/or counselors select Humanities as a first choice. Industry seems to be perceived by all as a more viable option for students with average scores who might have repeated a year of the guidance cycle.(Tables 27 through 29).

It is interesting to note that the prospective Science and Math students score well above those who choose (and/or whose parents and/or counselors choose) Industry as a first choice in Technical and Vocational

Studies as well as in other subjects. In fact, those who choose Industry score a half point below average in Tehcnical and Vocational Studies, as they do in both Science and Mathematics. Both fields require a minimum score of 12 in Science and in Mathematics for entrance into secondary studies, and Industry requires in addition a minim score of 12 in Technical and Vocational Studies. The prospective Science and Math students also score higher in Persian and Foreign Languages than do those who select(and/or whose parents and/or counselors select) Humanities as their first choice of field, despite the fact that entrance into Humanities requires a minimum score of 12 in these two subjects and entrance into Science and Math does not.

A student who is qualified to enter the Science and Math field is most often also qualified to enter Industry and Humanities as well, and it appears that the Science and Math field attracts those students who are the most successful in every subject, not only in the subjects most closely associated with the field. This suggests that most students and parents who choose Science and Math do so realistically, in that these students are overall the most successful academically and the ones judged most disciplined by their teachers. Yet it seems that students select and/or are recommended for a field of study at best only secondarily with respect to any special interests and abilities. The most academically successful, whatever his/her particular talents, is most likely to select and to be recommended for the most prestigeous field.

The final relationship to be considered here is that between the educational performance variables and our measures of socio-economic status. When we look at repetiton of school years during the guidance cycle as a measure of educational performance we do find some indication that these two variables are associated. There is a significant correlation between father's educational level and the success of the student in school;

of students whose fathers had a 6th grade education or above 76% completed the guidance cycle without repeating a year, while of those whose father had less than a 6th grade education only 58% completed the guidance cycle without repeating a year (Table 30). The level of mother's education is even more strongly correlated with the lack of repetition of school years. Of the students whose mothers had a 6th grade education or more83% completed the guidance cycle without repeating a year, while of those whose mothers had less than a 6th grade education, only 57% completed the guidance cycle without repeating a year (Table 31).

When we look at the relationship between the average grades and the socio-economic variables, however, the situation is a little different. We find no significant relationship between the number of people per room in the student's home and his/her grades nor between the employment status of the mother and the students grades in any subject. The only subject for which there is a significant association between the scores and the father's occupation is Persian; as we might expect, those students whose fathers are in the professional occupational category score higher than do other students (Table 32). We also find no significant relationship between the father's educational level and the student's scores in nine of the guidance cycle subjects. Only with respect to Mathematics and Technical and Vocational Studies do we find such a relationship, and again students whose fathers have a high school diploma or college education score higher than do others (Table 33). When we compare the level of mother's education with the school scores we again find no significant relationship for eight subjects. We do, however, find a significant relationship between mother's education and the student's scores in Science, Mathematics, and Technical and Vocational Studies (Table 34). These subjects, of course, are the most crucial ones with respect to entrance into the highest ranking fields of secondary education.

Conclusion

We find thus far on the basis of statistical analysis of the files of 465 former guidance cycle students that the recommendation by the counselor of a field of secondary education for the student is correlated with the student's first choice of field and with the parents' first choice of field for thier child; it is also correlated with the educational performance variables, the grades of the student and the lack of repetition of years at school during the guidance cycle. All these factors are ones which most Iranian educators and counselors agree should be taken into account, either because they correspond with their ideal of the guidance process or because they must be considered due to the nature of the secondary education system.

On the other hand, we did not find a statistically significant relationship between the majority of our socio-economic measures and the counselor's recommendation of a field of secondary study for these students. These variables would appear to influence the counselor's decision indirectly, however, through their influence on the expressed preferences of students and parents, and through their influence on the educational performance of the student. With respect to the latter, we found less evidence of influence than we had expected. Though socio-economic variables were generally associated with the lack of repetition of years in the guidance cycle, they were not associated with high scores in all subjects. Yet, the subjects for which family variables were associated with high scores are those which are most crucial for entrance into the most prestigious fields of secondary education.

TABLE 1

The new educational system of Iran

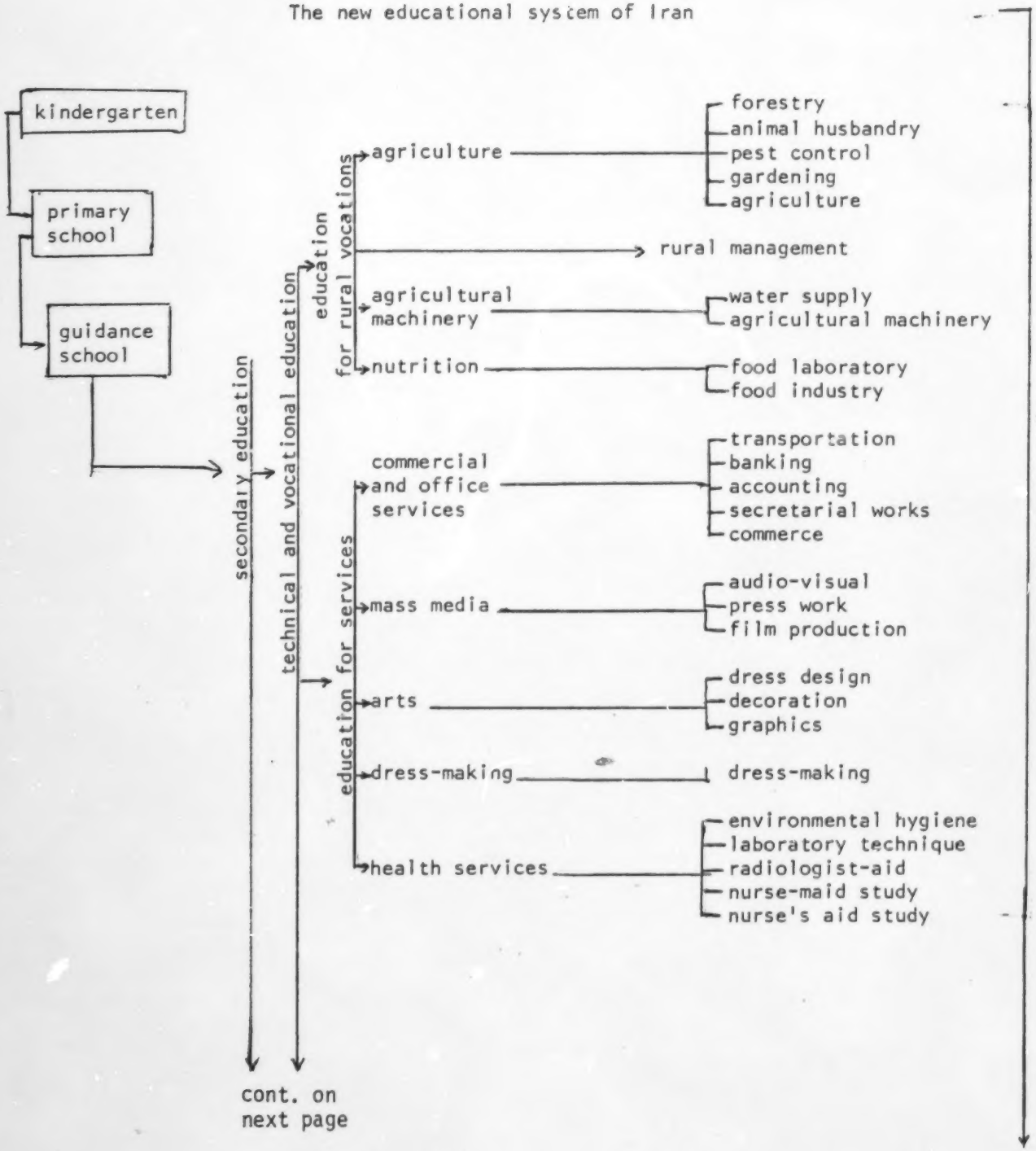
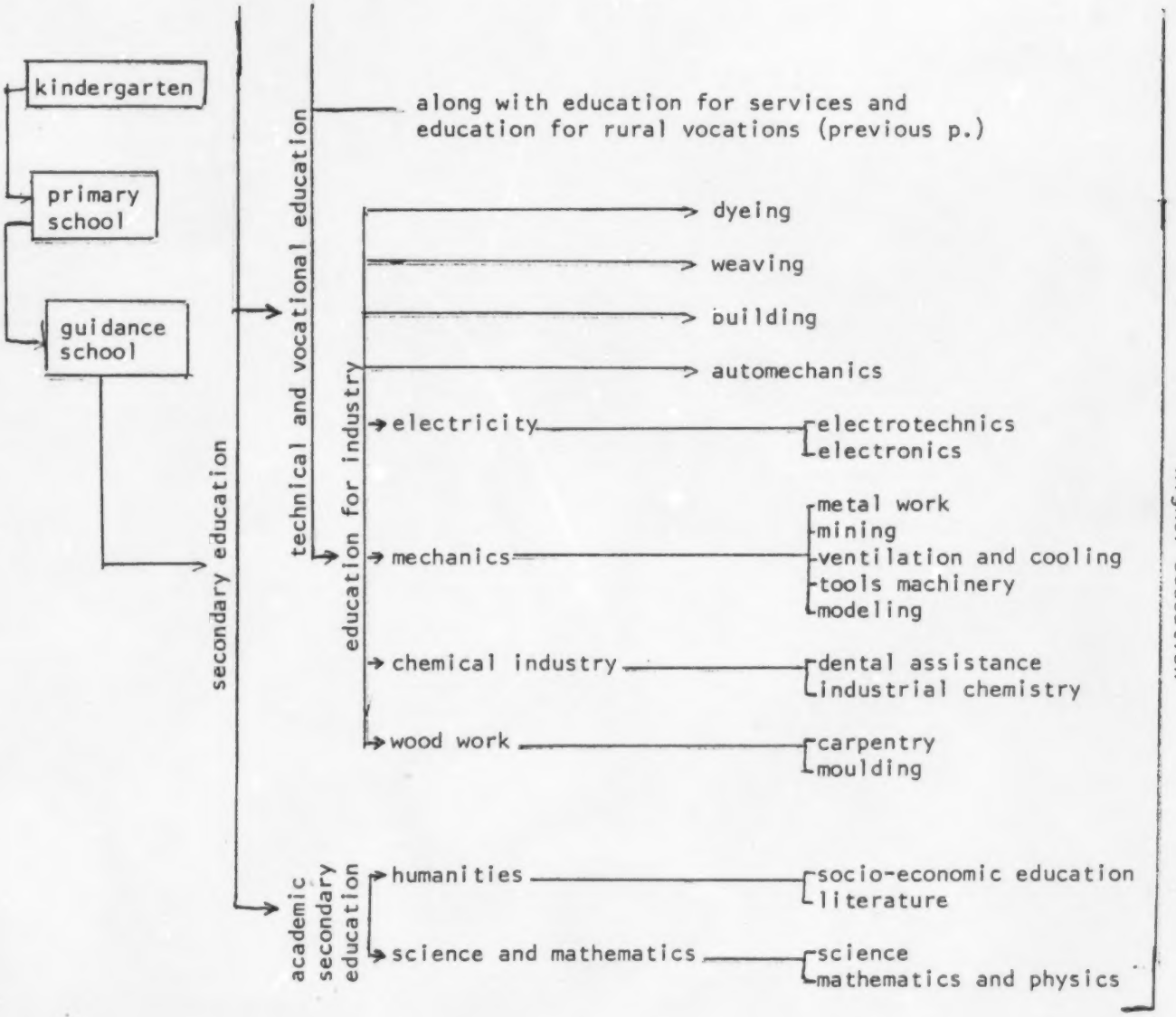


TABLE 1 (cont.)

The new educational systems of Iran



SOURCE: Iran, Ministry of Education 1976b: 11.

TABLE 2

PERCENT OF STUDENTS, SCHOOLS, AND TEACHERS, GRADES 9-12
IN TECHNICAL AND VOCATIONAL EDUCATION

Academic Year	Students			Schools	Teachers
	Males	Females	Total		
1972-73	9.5	3.9	7.7	11.3	9.5
1973-74	9.4	4.2	7.7	13.2	13.0
1974-75	19.1	9.7	15.9	24.3	20.1
1975-76	20.7	9.7	16.9	24.8	24.0
1976-77	25.5	11.7	20.6	26.4	28.9

SOURCE: Based on figures from Iran, Ministry of Education, 1973, 1974, 1975, 1976, and 1977

TABLE 3

PARENTS EDUCATIONAL LEVEL

	Percent of fathers	Percent of mothers
Less than 6th grade (including traditional schooling)	20	35
Primary certificate (completion of 6th grade)	33	40
Some high school (grades 7-11)	21	15
High school diploma or college education	26	10
Total reporting	N=434	N=412

TABLE 4

PARENTS OCCUPATIONAL LEVEL

	Percent of fathers	Percent of mothers
Not employed	0	90
Unskilled labor	24	1
Skilled labor	23	2
White-collar	36	7
Professional/managerial	6	0
Business	10	0
Total reporting	N=455	N=458

TABLE 5

FATHER'S OCCUPATIONAL CATEGORY BY FATHER'S EDUCATIONAL LEVEL

	Father's Education			
Father's Occupation	Less than 6th grade	Primary certificate	Some high school	High school diploma/ college
Unskilled labor	53.6[a]	28.6	10.0	0.9
Skilled labor	29.8	35.0	22.2	6.3
White-collar	7.1	21.4	55.6	64.9
Professional/managerial	0	0	1.1	23.4
Business	9.5	15.0	11.1	4.5
Number reporting	N=84	N=140	N=90	N=111

$\chi^2(12) = 227.59$, $p = 0.000$

[a]Entries are percentages by columns

TABLE 6

FATHER'S OCCUPATIONAL CATEGORY BY MOTHER'S EDUCATIONAL LEVEL

Father's Occupation	Mother's Education: Less than 6th grade	Primary Certificate	Some high school or more
Unskilled labor	41.7[a]	16.5	5
Skilled labor	27.8	26.6	12
White-collar	18.8	39.2	57
Professional/managerial	2.8	3.8	18
Business	9.0	13.9	8
Number reporting	N=144	N=158	N=100

$\chi^2(8) = 100.75$, $p = .000$

[a]Entries are percentages by columns

TABLE 7

FATHER'S EDUCATIONAL LEVEL BY MOTHER'S EDUCATIONAL LEVEL

Father's Education	Mother's Education: Less than 6th grade	Primary Certificate	Some high school	High school diploma/ college
Less than 6th grade	38.8[a]	11.8	3.4	2.4
Primary certificate	40.3	44.7	6.8	0
Some high school	15.8	23.6	30.5	19.5
High school diploma/college	5.0	19.9	59.3	78.0
Number reporting	N=139	N=161	N=59	N=41

$\chi^2(9) = 178.12$, $p = 0.000$

[a]Entries are percentages by columns

TABLE 8

MOTHER'S EDUCATIONAL LEVEL BY MOTHER'S EMPLOYMENT STATUS

	Mother's Employment Status		
Mother's Education	Percent employed	Percent not employed	Number of cases
Less than 6th grade	4.1	95.9	142
Primary Certificate	0.6	99.4	162
Some secondary education	13.3	86.7	60
High school diploma or college	64.3	35.7	42

$\chi^2(3) = 156.33$, $p = 0.000$

TABLE 9

FATHER'S EDUCATIONAL LEVEL BY MOTHER'S EMPLOYMENT STATUS

	Mother's Employment Status		
Father's Education	Percent employed	Percent not employed	Number of cases
Less than 6th grade	5.9	94.1	85
Primary Certificate	1.4	98.6	142
Some secondary education	6.7	93.3	89
High school diploma or college	25.9	74.1	112

$\chi^2(3) = 46.49$, $p = .000$

TABLE 10

AVERAGE SCORES ON THE THREE YEAR-END EXAMINATIONS

Subject	Mean Score	Standard Deviation	No. of cases
Religion and Morals	13.9	2.5	204
Social Science	14.1	2.7	207
Persian	14.6	2.3	462
Science	13.1	3.0	462
Mathematics	11.5	3.4	462
Technical and Vocational Studies	14.7	2.8	462
History and Geography	13.3	2.8	204
Foreign Language	13.1	3.2	207
Physical Education	17.0	1.9	205
Art	15.7	1.8	207
Comportment	17.6	1.8	206

TABLE 11

MEAN FINAL EXAM SCORES BY SUBJECT AND REPETITION OF YEARS IN SCHOOL

Subject	Repetition of Years		
	none	one or more	
Religion & Morals	14.13	11.24	t (38.13) = 6.79, p = .000
Social Science	14.35	12.59	t (32.77) = 3.46, p = .001
Persian	14.85	13.02	t (277) = 6.54, p = .000
Science	13.60	11.19	t (277) = 6.32, p = .000
Mathematics	11.89	9.14	t (277) = 6.48, p = .000
Technical & Vocational Studies	15.30	13.08	t (187.97) = 7.35, p = .000
History and Geography	13.29	10.74	t (112) = 4.15, p = .000
Foreign Language	12.97	10.04	t (112) = 3.83, p = .000
Physical Education	17.50	14.90	t (17.66) = 3.15, p = .006
Art	15.97	14.33	t (19.71) = 3.18, p = .005
Comportment	17.80	16.35	t (111) = 3.05, p = .003

TABLE 12

CORRELATION COEFFICIENTS OF MEAN FINAL EXAM SCORES

	Social Science	Persian	Science	Mathematics	Technical/Vocational	History/Geography	Foreign Language	Physical Education	Art	Comportment
Religion & Morals	.73	.72	.69	.57	.65	.67	.64	.35	.41	.39
Social Science		.64	.64	.55	.64	.61	.64	.39	.39	.37
Persian			.70	.60	.65	.62	.69	.36	.40	.44
Science				.65	.66	.69	.66	.24	.33	.36
Mathematics					.59	.57	.58	.17	.40	.43
Technical/Vocational						.64	.59	.42	.47	.44
History/Geography							.64	.29	.36	.36
Foreign Language								.31	.42	.45
Physical Education									.32	.25
Art										.31

All correlation coefficients significant at $p \leq .01$.

TABLE 13

FIELDS OF SECONDARY EDUCATION--FREQUENCY OF FIRST CHOICE SELECTION BY STUDENTS, PARENTS, AND COUNSELORS

Field	Student Selection (%)	Parent Selec. (%)	Counselor Selec. (%)
Science & Math	37	40	26
Industry	24	21	16
Humanities	12	15	21
Services	10	8	20
Rural Vocations	0	1	0
Comprehensive	5	4	4
Academic	12	10	12
Total reporting	N=430	N=367	N=276

Crosstabulation of the student's selection by the parents' selection:

χ^2 (9) = 532.66, p = .000,
λ_{AB} = .73

Crosstabulation of the student's selection by the counselor's selection:

χ^2 (9) = 209.01, p = .000,
λ_B = .51 (with counselor's selection dependent)

Crosstabulation of the parents' selection by the counselor's selection:

χ^2 (9) = 175.10, p = .000,
λ_B = .47 (with counselor's selection dependent)

TABLE 14

STUDENT'S CHOICE OF FIELD
BY FATHER'S EDUCATIONAL LEVEL

	Father's Education			
	Less than 6th Grade	Primary Certificate	Some High School	High School Diploma/College
Student's Choice of Field				
Science & Math	25.4[a]	46.3	54.5	57.1
Industry	36.6	28.7	27.3	19.0
Humanities	25.4	13.9	6.1	15.5
Services	12.7	11.1	12.1	8.3
Number Reporting	71	108	66	84

χ^2 (9) = 23.58, p = .005

[a]Entries are percentages by column.

TABLE 15

PARENTS' CHOICE OF FIELD
BY FATHER'S EDUCATIONAL LEVEL

	Father's Education			
	Less than 6th Grade	Primary Certificate	Some High School	High School Diploma/College
Parents' Choice of Field				
Science & Math	28.1[a]	45.0	53.6	59.7
Industry	31.3	28.0	25.0	16.7
Humanities	28.1	17.0	12.5	15.3
Services	12.5	10.0	8.9	8.3
Number Reporting	64	100	56	72

χ^2 (9) = 16.85, p = .05

[a]Entries are percentages by column.

TABLE 16

STUDENT'S CHOICE OF FIELD
BY NUMBER OF PERSONS PER ROOM

Student's Choice of Field	Average Number of Persons Per Room in Home	Number Reporting
Science & Math	2.09	127
Industry	2.35	72
Humanities	2.74	47
Services	2.51	35

$F(3,277) = 3.58$,
$p = .014$

TABLE 17

PARENTS' CHOICE OF FIELD
BY NUMBER OF PERSONS PER ROOM

Parents' Choice of Field	Number of Persons Per Room in Home	Number Reporting
Science & Math	2.14	119
Industry	2.28	67
Humanities	2.98	48
Services	2.60	25

$F(3,255) = 5.63$,
$p = .001$

TABLE 18

STUDENTS' CHOICE OF FIELD
BY FATHER'S OCCUPATION

	Father's Occupation			
	Unskilled Labor	Skilled Labor	White Collar	Professional/ Managerial & Business
Students' Choice of Field				
Science & Math	39.5[a]	32.5	56.6	52.8
Industrial	29.6	33.8	20.9	34.0
Humanities	14.8	21.3	10.9	9.4
Services	16.0	12.5	11.6	3.8
Number Reporting	81	80	129	53

χ^2 (9) = 20.48, p = .015

[a]Entries are percentages by column.

TABLE 19

PARENTS' CHOICE OF FIELD
BY FATHER'S OCCUPATION

	Father's Occupation			
	Unskilled Labor	Skilled Labor	White Collar	Professional/ Managerial & Business
Parents' Choice of Field				
Science & Math	44.9[a]	31.4	56.9	60.0
Industrial	26.9	27.1	20.7	27.5
Humanities	14.1	31.4	13.8	7.5
Services	14.1	10.0	8.6	5.0
Number Reporting	78	70	116	40

χ^2 (9) = 22.69, p = .007

[a]Entries are percentages by column.

TABLE 20

STUDENTS' CHOICE OF FIELD
BY MOTHER'S EDUCATIONAL LEVEL

	Mother's Education			
	Less than 6th Grade	Primary Certificate	Some High School	High School Diploma/College
Student's Choice of Field				
Science & Math	33.6[a]	51.2	54.8	53.1
Industry	31.9	28.1	21.4	25.0
Humanities	21.6	9.1	9.5	21.9
Service	12.9	11.6	14.3	0.0
Number Reporting	116	121	42	32

χ^2 (9) = 19.22, p = .023

[a]Entries are percentages by column.

TABLE 21

STUDENT'S CHOICE OF FIELD BY MEAN FINAL EXAM SCORES
(PERSIAN, SCIENCE, MATHEMATICS, TECHNICAL/VOCATIONAL)

	Mean Final Exam Scores				
Student's Choice of Field	Persian	Science	Math	Technical/ Vocational	Number Reporting
Science & Math	15.38	14.16	12.58	15.69	158
Industry	13.70	12.10	10.63	13.92	101
Humanities	14.35	12.47	10.95	13.53	51
Services	13.51	11.69	9.93	13.73	41
	$F(3,347)=16.45$, $p = .000$	$F(3,347)=16.02$, $p = .000$	$F(3,347)=12.01$, $p = .000$	$F(3,347)=16.80$, $p = .000$	

TABLE 22

STUDENT'S CHOICE OF FIELD BY MEAN FINAL EXAM SCORES
(RELIGION & MORALS, SOCIAL SCIENCE, HISTORY/GEOGRAPHY)
(FOREIGN LANGUAGE, ART, COMPORTMENT)

	Mean Final Exam Scores			
	Religion & Morals	Social Science	History/ Geography	Number Reporting
Student's Choice of Field				
Science & Math	14.67	14.86	14.18	75
Industry	13.53	13.82	12.52	47
Humanities	13.76	13.71	12.98	34
Services	13.21	13.29	12.05	15
	$F(3,167)=3.11$, $p = .027$	$F(3,167)=2.97$, $p = .033$	$F(3,167)=5.12$, $p = .002$	

	Foreign Language	Art	Comportment	Number Reporting
Student's Choice of Field				
Science & Math	14.10	15.97	17.96	75
Industry	11.78	15.22	16.85	47
Humanities	13.32	16.04	17.86	34
Services	11.65	14.88	16.96	15
	$F(3,167)=6.24$, $p = .001$	$F(3,167)=3.16$, $p = .026$	$F(3,167)=4.58$, $p = .004$	

TABLE 23

PARENTS' CHOICE OF FIELD BY MEAN FINAL EXAM SCORES
(PERSIAN, SCIENCE, MATHEMATICS, TECHNICAL/VOCATIONAL)

	Mean Final Exam Scores				
	Persian	Science	Math	Technical/ Vocational	Number Reporting
Parents' Choice of Field					
Science & Math	15.57	14.29	12.74	15.76	146
Industry	13.51	11.82	10.33	13.83	78
Humanities	14.11	12.34	10.76	13.37	54
Services	13.55	11.82	10.53	14.00	31
	$F(3,305)=19.60$, $p = .000$	$F(3,305)=17.10$, $p = .000$	$F(3,305)=12.55$, $p = .000$	$F(3,305)=17.11$, $p = .000$	

TABLE 24

PARENTS' CHOICE OF FIELD BY MEAN FINAL EXAM SCORES
(RELIGION & MORALS, SOCIAL SCIENCE, HISTORY/GEOGRAPHY)
(FOREIGN LANGUAGE, ART, COMPORTMENT)

	Mean Final Exam Scores			
	Religion & Morals	Social Science	History/ Geography	Number Reporting
Parents' Choice of Field				
Science & Math	14.69	14.86	14.50	60
Industry	13.13	13.23	12.54	32
Humanities	13.54	13.38	12.78	30
Services	13.19	13.65	12.45	14
	$F(3,132)=3.65$, $p = .014$	$F(3,132)=3.73$, $p = .013$	$F(3,132)=4.99$, $p = .003$	

	Foreign Language	Art	Comportment	Number Reporting
Parents' Choice of Field				
Science & Math	14.36	16.11	18.07	60
Industry	11.81	14.94	16.89	32
Humanities	12.67	15.71	17.53	30
Services	11.39	14.90	17.03	14
	$F(3,132)=6.347$, $p = .001$	$F(3,132)=3.48$, $p = .018$	$F(3,132)=3.52$, $p = .017$	

TABLE 25

COUNSELOR'S CHOICE OF FIELD BY MEAN FINAL EXAM SCORES
(PERSIAN, SCIENCE, MATHEMATICS, TECHNICAL/VOCATIONAL)

	Mean Final Exam Scores				
	Persian	Science	Math	Technical/ Vocational	Number Reporting
Counselor's Choice of Field					
Science & Math	16.23	15.27	14.49	16.85	70
Industry	14.03	12.38	11.02	14.45	45
Humanities	14.56	12.56	10.75	14.35	57
Services	13.08	11.25	9.71	13.51	57
	$F(3,225)=27.02$, $p = .000$	$F(3,225)=28.34$, $p = .000$	$F(3,225)=38.94$, $p = .000$	$F(3,225)=23.89$, $p = .000$	

TABLE 26

COUNSELOR'S CHOICE OF FIELD BY MEAN FINAL EXAM SCORES
(RELIGION & MORALS, SOCIAL SCIENCE, HISTORY/GEOGRAPHY)
(FOREIGN LANGUAGE, PHYSICAL EDUCATION, ART)

	Mean Final Exam Scores			
	Religion & Morals	Social Science	History/ Geography	Number Reporting
Counselor's Choice of Field				
Science & Math	15.71	16.24	15.09	32
Industry	13.15	13.87	12.59	23
Humanities	13.59	13.70	12.13	30
Services	12.78	13.36	12.22	20
	F(3,101)=8.40, p = .000	F(3,101)=8.14, p = .000	F(3,101)=8.08, p = .000	

	Foreign Language	Physical Education	Art	Number Reporting
Counselor's Choice of Field				
Science & Math	15.12	17.70	16.62	32
Industry	12.16	16.26	14.93	23
Humanities	12.72	16.70	15.78	30
Services	11.46	16.88	14.72	20
	F(3,101)=7.95, p = .000	F(3,101)=3.61, p = .016	F(3,101)=8.48, p = .000	

TABLE 27

STUDENT'S CHOICE OF FIELD BY REPETITION OF YEARS IN SCHOOL

Student's Choice of Field	Number of Years Repeated	
	None	One or More
Science & Math	48.4[a]	20.8
Industry	32.3	45.3
Humanities	11.0	9.4
Services	8.4	24.5
Number Reporting	155	53

$\chi^2(3) = 17.50$, $p = .001$

[a]Entries are percentages by column.

TABLE 28

PARENTS' CHOICE OF FIELD BY REPETITION OF YEARS IN SCHOOL

Parents' Choice of Field	Number of Years Repeated	
	None	One or More
Science & Math	53.8[a]	23.5
Industry	21.0	45.1
Humanities	16.8	13.7
Services	8.4	17.6
Number Reporting	119	51

$\chi^2(3) = 17.59$, $p = .001$

[a]Entries are percentages by column.

TABLE 29

COUNSELOR'S CHOICE OF FIELD BY REPETITION OF YEARS IN SCHOOL

Counselor's Choice of Field	Number of Years Repeated	
	None	One or More
Science & Math	35.8[a]	3.1
Industry	19.3	28.1
Humanities	26.6	15.6
Services	18.3	53.1
Number Reporting	109	32

$\chi^2(3) = 22.85$, $p = .000$

[a]Entries are percentages by column.

TABLE 30

FATHER'S EDUCATIONAL LEVEL BY REPETITION OF YEARS IN SCHOOL

Father's Education	Repetition of years in school none	one or more	Number Reporting
Less than 6th grade	58.1[a]	41.9	43
Primary Certificate	79.5	20.5	83
Some high school	68.4	31.6	57
High school diploma or college	79.2	20.8	77

$\chi^2(3) = 8.79$, $p = .032$

[a]Entries are percentages by row.

TABLE 31

MOTHER'S EDUCATIONAL LEVEL BY REPETITION OF YEARS IN SCHOOL

Mother's Education	Repetition of years in school none	one or more	Number Reporting
Less than 6th grade	56.8[a]	43.2	74
Primary Certificate	81.7	18.3	104
Some high school	85.4	14.6	41
High school diploma/college	81.5	18.5	27

$\chi^2(3) = 18.50$, $p = .000$

[a]Entries are percentages by row.

TABLE 32

MEAN FINAL EXAM SCORE (PERSIAN) BY FATHER'S OCCUPATION

Father's Occupation	Mean Scores	Number Reporting
Unskilled labor	14.64	109
Skilled labor	14.14	106
White collar	14.74	160
Professional/managerial	15.53	23
Business	14.51	47

$F\ (4,445) = 2.43,$
$p = .046$

TABLE 33

MEAN FINAL EXAM SCORE
(MATHEMATICS AND TECHNICAL AND VOCATIONAL STUDIES)
BY FATHER'S EDUCATION

Father's Education	Mean Scores		Number Reporting
	Mathematics	Technical/ Vocational	
Less than 6th grade	11.21	14.06	86
Primary Certificate	11.16	14.54	144
Some high school	11.28	14.54	90
High school diploma/college	12.27	15.41	112

$F\ (3,428) = 2.67,\ p = .046$ $F\ (3,428) = 4.30,\ p = .005$

TABLE 34

MEAN FINAL EXAM SCORE
(SCIENCE, MATHEMATICS, AND TECHNICAL AND VOCATIONAL STUDIES)
BY MOTHER'S EDUCATION

Mother's Education	Mean Scores			Number Reporting
	Science	Mathematics	Technical/ Vocational	
Less than 6th grade	12.70	10.97	14.08	146
Primary Certificate	13.22	11.48	14.83	160
Some high school	13.34	12.09	15.27	61
High school diploma/college	14.20	12.74	15.95	42
	$F(3.405)=2.99$, $p=.031$	$F(3,405)=3.77$, $p=.011$	$F(3,405)=7.01$, $p=.000$	

REFERENCES

Foster, Philip
1977 Education and Social Differentiation in Less Developed Countries. Comparative Education Review 21:211-229.

Higgins, Patricia J.
1978 School Records as Data: An Iranian Example. Paper presented at the 77th Annual Meeting of the American Anthropological Association.

Iran, Ministry of Education
1968 Educational Aims and the New System of Education in Iran. Tehran: Ministry of Education, Department of Planning and Research, Publication No. 57 (Mimeographed).

1972 By-laws of Examinations of the Five Year Primary and Three Year Guidance Cycles in Iran. Trans. Pouran Salami. Tehran: Ministry of Education, Research and Curriculum Development Center, Publication No. 17 (Mimeographed).

1973 Summary of Iranian Educational Statistics for the Academic Year 1972-73. Tehran: Ministry of Education, Office of Curriculum Coordination, Statistical Section (In Persian).

1974 Summary of Iranian Educational Statistics for the Academic Year 1973-74. Tehran: Ministry of Education, Office of Curriculum Coordination, Statistical Section (In Persian).

1975 Summary of Educational Statistics for the Academic Year 1974-75. Tehran: Ministry of Education, Office of Curriculum Coordination, Statistical Section (In Persian).

1976a Summary of Educational Statistics for the Academic Year 1975-76. Tehran: Ministry of Education, Office of Curriculum Coordination, Statistical Section (In Persian).

1976b The New Educational System of Iran. Education in Asia: Reviews, Reports, and Notes. Number 9:1-13.

1977 Summary of Educational Statistics for the Academic Year 1976-77. Tehran: Ministry of Education, Office of Curriculum Coordination, Statistical Section (In Persian).

Mehryar, A.H. and G.A. Tashakkori
1978 Sex and Parental Education as Determinants of Marital Aspirations and Attitudes of a Group of Iranian Youth. Journal of Marriage and the Family 40:629-637.

Safi, Ahmad
1975 The Guidance Cycle and Methods of Guiding Students in this Cycle. Tehran: Ministry of Education, Office of Guidance Cycle Curriculum Planning 9:11-19 (In Persian).